

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

THE NIELSEN COMPANY (US), LLC,)	
)	
Plaintiff,)	
)	C.A. No. _____
v.)	
)	JURY TRIAL DEMANDED
HYPHAMETRICS, INC.,)	
)	
Defendant.)	

COMPLAINT FOR PATENT INFRINGEMENT

The Nielsen Company (US), LLC ("Nielsen" or "Plaintiff"), for its Complaint against HyphaMetrics, Inc. ("HyphaMetrics" or "Defendant"), alleges as follows:

NATURE OF THE ACTION

1. This is an action for patent infringement brought against Defendant for infringement of United States Patent No. 8,924,994 ("the '994 Patent").

PARTIES

2. Nielsen is a limited liability company organized and existing under the laws of the state of Delaware.

3. HyphaMetrics is a corporation organized and existing under the laws of the state of Delaware.

JURISDICTION AND VENUE

4. This is an action for patent infringement arising under the Patent Act, 35 U.S.C. §§ 1 *et seq.* This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. § 1331 (federal question) and 28 U.S.C. § 1338(a) (action arising under the Patent Act).

5. This Court has personal jurisdiction over Defendant because Defendant is a Delaware corporation.

6. Venue is proper pursuant to 28 U.S.C. § 1400(b) because Defendant is a Delaware corporation.

FACTUAL BACKGROUND

7. Founded in 1923 by Arthur C. Nielsen, Nielsen is the media industry's leading data and analytics company. Nielsen fuels the industry with an accurate understanding of what people watch and listen to.

8. Measuring across all channels and platforms – from traditional linear television to streaming TV to social media and on-line video/audio platforms – Nielsen helps its clients and partners optimize the value of their marketing investments and growth strategies. Nielsen offers measurement and analytics in nearly 60 countries.

9. One of the unique features of Nielsen's product and service offerings is the leveraging of panel measurement technologies. More specifically, a cornerstone of Nielsen's media data and analytics business has been its investment in media panels and the related technology to measure those panels. Media panels consist of people allowing Nielsen into their homes to enable first-hand measurement, via audience measurement devices, of their media consumption activities on an ongoing basis. These media panels allow for a true understanding of, not just who is consuming media, but when, why, where, and how much – a truth set, which can be used to improve the accuracy of other messy, "dirty," or fragmented Big Data sets from other sources. Panel measurement can de-duplicate video and audio audiences so Nielsen's customers can know, for example, the difference between a single binge watcher and a family of devotees gathered in the living room watching their favorite programs.

10. The importance of panel measurement to Nielsen's products and services explains why Nielsen has spent hundreds of millions of dollars on its panel measurement technologies and

capabilities over decades. Knowing exactly who and how many individuals are watching television or consuming media within a particular Nielsen panel-home at a given time is at the core of Nielsen's data and analytics business.

THE ASSERTED PATENT

11. The '994 Patent, entitled "Power Management for Audience Measurement Meters," was duly and legally issued on December 30, 2014. A true and correct copy of the '994 Patent is attached hereto as Exhibit A.

12. Nielsen is the assignee and owner of all right, title, and interest in the '994 Patent. The '994 Patent is valid and enforceable.

13. The claims of the '994 Patent are directed to, among other things, solving the problems experienced in the prior art regarding excessive and inefficient power consumption in audience measurement meters. ('994 Patent, 1:13-20 ("Prior audience measurement systems include audience measurement meters that may operate continuously to ensure accurate monitoring of monitored media presentation devices, which may present media content at any time. As such, an audience measurement meter in one of these prior systems may consume power continuously, even when the associated media presentation device being monitored is inactive."); 2:64-3:9 ("[B]ecause media presentation devices are often inactive for substantial periods of time, such as overnight during normal sleeping hours, such continuous operation of these prior audience measurement meters can result in unnecessary and/or wasteful power consumption. In contrast to such prior systems, example power management methods, apparatus and articles of manufacture disclosed herein enable an audience measurement meter to be activated (*e.g.*, woken up) and deactivated (*e.g.*, placed in sleep state) corresponding to a detected activation state of a media

presentation device being monitored by the audience measurement meter, thereby improving energy efficiency of the audience measurement meter.".)

14. In addition to improving the efficiency of power consumption, the claims of the '994 Patent also allow for improved accuracy of audience measurement. (*Id.*, 3:33-49 ("In contrast to such prior art systems, example power management methods, apparatus and articles of manufacture disclosed herein enable a data processing facility to determine whether the media presenting device being monitored by the audience measurement meter was active or inactive during a power loss or other outage experienced by the audience measurement meter (*e.g.*, where a power loss or other outage is indicated by a gap in the audience measurement data reported by the audience measurement meter). Moreover, if the media presenting device is determined to have been inactive while the audience measurement meter experienced the power loss or other outage, no media content could have been presented during the gap(s) in the measurement data resulting from the power loss or other outage and, thus, the data processing facility can determine that faulting the audience measurement data obtained from the audience measurement meter is unnecessary.".)

15. The limitations of claim 7 of the '994 Patent recite the determining of whether the media presentation device is in an active state by measuring its power consumption and controlling the audience measurement meter accordingly. ('994 Patent, claim 7.) Such a determination of the state of the media presentation device is accomplished by using two different power consumption thresholds. (*Id.*) When the power consumption exceeds a first threshold, it is determined that the media presentation device is in an active state, and the audience measurement meter is activated to monitor the media presentation device. (*Id.*) Conversely, when the power consumption is less

than a second threshold, it is determined that the media presentation device is in an inactive state, and the audience measurement meter is deactivated. (*Id.*)

16. The declaration of Virginia Lee ("Lee Decl."), attached hereto as Exhibit B, is incorporated by reference into this Complaint.

17. Determining that a media presentation device is in an active state when the measured power consumption is greater than a first threshold and determining that the media presentation device is in an inactive state when the measured power consumption is less than a second threshold different from the first threshold ("the Two Threshold Element"), as recited in claim 7, is inventive and novel. (Lee Decl., ¶ 8.) Furthermore, controlling activation of an audience measurement meter based on a determination of the activation state of the media presentation device by using two thresholds with regard to power consumption, where the audience measurement meter monitors the media presentation device when the activation state is the active state ("the Activation Control Element"), as recited in claim 7, is inventive and novel. (*Id.*)

18. Claim 7 of the '994 Patent is not directed to an abstract idea. Rather, it is directed to a specific technical solution to the prior art problems of excessive and inefficient power consumption in audience measurement devices and inaccuracy in audience measurement.

19. The filing date of the application for the '994 Patent is May 31, 2011 ("the Filing Date"). As of that date, neither the Two Threshold Element nor the Activation Control Element were well-understood, routine, or conventional. (*Id.*)

20. The Two Threshold Element provides an approach to determining whether a viewer's television set is on or off. (*Id.*, ¶ 9.) In particular, this approach uses a first power consumption threshold to determine that the television is on, and a second power consumption threshold to determine that the television is off. (*Id.*)

21. Before the Filing Date, the Two Threshold Element was not known, and determining the activation state of the media presentation device by measuring power consumption was not done. (*Id.*, ¶ 10.) When the activation state of the media presentation device was determined at all, other methods were used. (*Id.*) For example, one prior art approach was to monitor the audio output of a television to determine whether it was on or off. (*Id.*)

22. The Two Threshold Element allows the accurate determination of the activation state of the media presentation device by measuring power consumption. (*Id.*, ¶ 11.) In particular, using two thresholds results in an effect known as hysteresis, which is an advantage for the approach of measuring power consumption to determine the activation state of the media presentation device. Hysteresis is an effect in which the state of a system depends not only on current inputs, but also on prior inputs and prior system state, and in which rapid measured changes in state are reduced or prevented. (*Id.*) Accordingly, for example, leveraging hysteresis, a television is determined to be in an active state if its power consumption exceeds the first threshold, and it is determined to be in the inactive state if its power consumption is less than a second threshold. (*Id.*) If the power consumption is between the two thresholds, then no new determination is made, and the media presentation device is deemed to be in the same state as was last determined. (*Id.*)

23. The Two Threshold Element of the '994 Patent is a vast improvement over using a single threshold to determine the activation state of a media presentation device. (*Id.*) A given media presentation device will have an average power consumption, but the actual power consumption at any given time will vary a certain amount, both above and below the average. (*Id.*) Such variations can be frequent and rapid. (*Id.*) As opposed to using a single power threshold to determine the activation state of the media presentation device (which could result in inaccurately

determining fluctuations in activation state), the Two Threshold Element uses a hysteresis effect in which the determined state of the media presentation device changes only if the variation in power consumption is significant enough to evidence a true change in the activation state of the device. (*Id.*)

24. Measuring power consumption to determine the activation state of a media presentation device is an improvement over prior art methods such as monitoring audio output. (*Id.*, ¶ 12.) The audio output approach was inaccurate because sound levels of media content vary widely, and thus, a quiet scene in a program often caused an incorrect determination that the media presentation device was inactive. (*Id.*) Additional inaccuracy of the audio output approach could be caused by spillover audio from other rooms or audio echoing off walls. (*Id.*)

25. The Two Threshold Element provides one specific way to determine the activation state of a media presentation device. Other approaches, such as the audio output monitoring approach, can be used.

26. The Activation Control Element of the '994 Patent provides an approach to controlling an audience measurement device according to whether the media presentation device is in an active or inactive state, based on the use of two thresholds to measure television power consumption. This was not known in the prior art. (*Id.*, ¶ 13.) Not using the approach of the Activation Control Element resulted in the inefficient and wasteful use of energy, and it also resulted in the inaccuracy associated with monitoring the audience when the media presentation device was inactive. (*Id.*)

27. The Activation Control Element approach solved the above-mentioned prior art problems regarding inaccuracy and power usage efficiency by keeping the audience measurement device active only when the media presentation device is actually active. (*Id.*, ¶ 14.)

28. The Activation Control Element provides one specific way (an improved way) to manage power usage and improve the accuracy of audience measurement. (*Id.*, ¶ 15.) Other approaches can be used.

THE INFRINGING PRODUCT

29. HyphaMetrics is an audience measurement company. (Rafi Cohen, *Hyphametrics Comes Out Swinging with Hyper-surveillance Attribution*, March 25, 2021, <https://rethinkresearch.biz/articles/hyphametrics-comes-swinging-hyper-surveillance-attribution/> ("Cohen Article"), attached hereto as Exhibit C.)

30. According to press accounts, HyphaMetrics performs audience measurement via boxes attached to each television in its member households. (Jon Lafayette, *HyphaMetrics Issued Patent for Cross-Platform Measurement*, March 10, 2021, <https://www.nexttv.com/news/hyphametrics-issued-patent-for-cross-platform-measurement> ("Lafayette Article"), attached hereto as Exhibit D.) Each household contains a HyphaMetrics "coreMeter" box, which collects data from each of the boxes attached to the household's televisions. (Cohen Article, Ex. C.)

31. According to HyphaMetrics co-founder and CEO Joanna Drews, HyphaMetrics' systems and methods ("the Infringing Products and Methods") "can facilitate the measurement of everything occurring in someone's home." (Lafayette Article, Ex. D.)

32. HyphaMetrics is the listed assignee of U.S. Patent No. 10,932,002 ("the '002 Patent"), attached hereto as Exhibit E.

33. HyphaMetrics' CEO and co-founder Joanna Drews has been reported to say that the '002 Patent describes the Infringing Products and Methods. (*See* Lafayette Article, Ex. D ("Patent No. 10,932,002 covers [HyphaMetrics'] unique coreMeter hardware, its methodology for

collecting data from all media sources in a household, and how the company determines individuals' media consumption within a household."); Cohen Article, Ex. C ("HyphaMetrics has just been issued its first patent, which [HyphaMetrics co-founder and CEO Joanna] Drews said covers 15 unique elements of its methodology, including the tracking of IP traffic, the use of certain ML algorithms, as well as the proprietary hardware, software and cloud technologies that are used.").

34. According to the patent that Defendant acknowledges covers its products and methods, the Infringing Products and Methods activate the coreMeter and/or the individual boxes attached to its member households' televisions when the power consumption of the televisions exceeds a certain threshold. (*See* '002 Patent, 14:18-25 ("[D]etermining whether the television 200 is powered on or off may be used to (i) establish the measurement on/off times based on the times the user is actually watching television. . . ."); 14:2-8 ("The TV ON/OFF detection circuit 151 is configured to determine whether the TV connected to the gateway 110 is on or off in one of two different ways. First, if the TV is plugged into the AC power port 144, the circuit 151 detects the amount of power flowing to the television (*e.g.*, via an AC loop sensor or other current sensor or via a shunt resistor or other voltage sensor)."); 48:34-51 ("Through an embedded API, the gateway 110 software obtains the readings from the TV ON/OFF detection circuit 151 to detect if the TV Set is turned on (*i.e.*, alternating current is flowing to the television in excess of a threshold). . . If AC power is detected at step 2230, the process moves to step 2240 and a determination is made that the current provided to the television is within a calibration threshold. If the current is within the threshold, the process moves to step 2250, and the gateway status of AC to the television is set to '1'.")).

35. According to the patent that Defendant acknowledges covers its products and methods, the Infringing Products and Methods deactivate the coreMeter and/or the individual boxes attached to its member household's televisions when the power consumption is below a second threshold. (*See* '002 Patent, 48:34-39 ("Through an embedded API, the gateway 110 software obtains the readings from the TV ON/OFF detection circuit 151 to detect if the TV Set is turned on (i.e., alternating current is flowing to the television in excess of a threshold) or is turned off (no/low alternating current to the television)."); 48:51-55 ("On the other hand, if no AC current is detected as step 2230, or if the AC current detected is not within the predetermined threshold at step 2240, the process moves to step 2260, and the gateway status of AC to the television is set to '0'.").)

36. HyphaMetrics' chief revenue officer Mike Bologna has been quoted as saying that HyphaMetrics performs, makes, uses, sells, and offers for sale the Infringing Products and Methods. (*See* Lafayette Article, Ex. D. ("We are about to launch a field trial,' [HyphaMetrics' chief revenue officer Mike Bologna] said, putting [HyphaMetrics'] coreMeter boxes into about 100 homes while working with a few select partners.")). Upon information and belief, HyphaMetrics tests and demonstrates the Infringing Products and Methods. (*See id.*)

37. The press has reported that HyphaMetrics has concluded a deal with audience measurement company VideoAmp ("the VideoAmp Deal"). (Jon Lafayette, *VideoAmp Incorporates HyphaMetrics Panel Data into Audience Measurement*, October 13, 2021, <https://www.nexttv.com/news/videoamp-incorporates-hyphametrics-panel-data-into-audience-measurement>, attached hereto as Exhibit F.) Pursuant to this deal, VideoAmp will incorporate data derived from HyphaMetrics' Infringing Products and Methods into its measurement products. (*Id.*) Upon information and belief, VideoAmp chose to pursue the VideoAmp Deal at least in part

due to HyphaMetrics' activities that constitute infringement of the '994 Patent. (*See id.* ("[VideoAmp has] been especially impressed with HyphaMetrics' innovative, patented measurement tech stack . . .").)

38. By performing, making, using, offering to sell, and selling the Infringing Products and Methods, HyphaMetrics infringes claim 7 of the '994 Patent. HyphaMetrics' infringement has harmed, and will continue to harm, Nielsen. (*See id.* ("ViacomCBS said it would use a currency based on VideoAmp measurement as a currency to plan, transact and measure national media campaigns . . .").)

39. By this lawsuit, Nielsen seeks to enjoin HyphaMetrics from any further unauthorized performance, making, use, sale, or offering for sale of Nielsen's patented technology, and it seeks to recover damages, including lost profits, treble damages, reasonable attorneys' fees, and other such and further relief as the Court deems just and proper against HyphaMetrics' violation of federal law.

COUNT I
INFRINGEMENT OF THE '994 PATENT

40. Nielsen repeats and re-alleges paragraphs 1-39 as if fully set forth herein.

41. HyphaMetrics has infringed and continues to infringe, literally or under the doctrine of equivalents, claim 7 of the '994 Patent under 35 U.S.C. § 271(a) by performing, making, using, selling and/or offering to sell in the United States the Infringing Products and Methods.

42. As of the filing date of this Complaint, HyphaMetrics is aware of the '994 Patent and the manner in which Infringing Products and Methods practice claim 7. Accordingly, since that date, HyphaMetrics has intended to induce and has induced members of the households that contain the Infringing Products and Methods to infringe claim 7 of the '994 Patent under 35 U.S.C.

§ 271(b). HyphaMetrics supplies those household members all hardware, software, and firmware used to perform the method of claim 7 and provides instructions on how to perform the method.

43. Claim 7 of the '994 Patent recites "measuring, using a processor, power consumption of a media presentation device." According to the patent that Defendant acknowledges covers its products and methods, the Infringing Products and Methods perform this method step. (*See* '002 Patent, 14:2-8 ("The TV ON/OFF detection circuit 151 is configured to determine whether the TV connected to the gateway 110 is on or off in one of two different ways. First, if the TV is plugged into the AC power port 144, the circuit 151 detects the amount of power flowing to the television (*e.g.*, via an AC loop sensor or other current sensor or via a shunt resistor or other voltage sensor)."); 48:28-39 ("[T]he gateway 110 includes an integrated power supply 150 that powers all the electronic components inside of the housing 112. The gateway 110 also includes a TV ON/OFF detection circuit 151 that is capable of sensing that alternating current (AC) is flowing to the television's power cable through the AC output port 144. Through an embedded API, the gateway 110 software obtains the readings from the TV ON/OFF detection circuit 151. . . ."); 48:40-46 ("FIG. 23 shows a flowchart 2200 of a CoreMeter process for determining television state based on AC detection using an AC sensor provided by the TV ON/OFF detection circuit 151. The process begins at step 2210 when the gateway is turned on. Then at step 2220, the TV ON/OFF detection circuit 151 of the gateway 110 monitors AC power flowing to the television 200 (*e.g.*, via a current sensor)."); 8:14-25 ("The processing circuitry/logic 114 is operative, configured and/or adapted to operate the content gateway 110 including the features, functionality, characteristics and/or the like as described herein. To this end, the processing circuitry/logic 114 is operably connected to the memory 116, and various other components including the communications module 120, the I/O ports 130, the power module 150, the display 152, the

microphone 154, and the speaker 156. The processing circuitry 114 may be provided by one or more commercially available microprocessors, such as a quad core 1.8 GHz or faster processor, such as those sold by Intel Corporation or AMD, Inc.".)

44. Claim 7 of the '994 Patent also recites "determining, using the processor, that an activation state of the media presentation device is an active state when the measured power consumption is greater than a first threshold." According to the patent that Defendant acknowledges covers its products and methods, the Infringing Products and Methods perform this method step. (*See* '002 Patent, 48:34-39 ("Through an embedded API, the gateway 110 software obtains the readings from the TV ON/OFF detection circuit 151 to detect if the TV Set is turned on (i.e., alternating current is flowing to the television in excess of a threshold). . . ."); 48:46-51 ("If AC power is detected at step 2230, the process moves to step 2240 and a determination is made that the current provided to the television is within a calibration threshold. If the current is within the threshold, the process moves to step 2250, and the gateway status of AC to the television is set to '1.'").

45. Claim 7 of the '994 Patent also recites "determining, using the processor, that he activation state is an inactive state when the measured power consumption is less than a second threshold different from the first threshold." According to the patent that Defendant acknowledges covers its products and methods, the Infringing Products and Methods perform this method step. (*See* '002 Patent, 48:34-39 ("Through an embedded API, the gateway 110 software obtains the readings from the TV ON/OFF detection circuit 151 to detect if the TV Set is turned on (i.e., alternating current is flowing to the television in excess of a threshold) or is turned off (no/low alternating current to the television)."); 48:51-55 ("On the other hand, if no AC current is detected

as step 2230, or if the AC current detected is not within the predetermined threshold at step 2240, the process moves to step 2260, and the gateway status of AC to the television is set to '0.'").)

46. Claim 7 of the '994 Patent also recites "controlling, using the processor, activation of an audience measurement meter based on the monitored activation state of the media presentation device, the audience measurement meter to monitor the media presentation device when the activation state is the active state." According to the patent that Defendant acknowledges covers its products and methods, the Infringing Products and Methods perform this method step. (*See* '002 Patent, 7:33-36 ("The gateway 110 is configured detect consumption of and identify media content presented on both the television 200 and the various wireless devices 220."); 9:17-20 ("The client-side content identification engine 164 is configured to monitor, analyze and identify content presented on the television screen and other display devices using a multi-layered approach to content identification."); 14:19-25 ("[D]etermining whether the television 200 is powered on or off may be used to (i) establish the measurement on/off times based on the times the user is actually watching television. . . ."); 47:32-38 ("[T]he gateway 110 is only configured to monitor and identify content delivered to the television 200 when the television itself is turned on (*i.e.*, such that the television screen and [sic] capable of presenting content to panelists within the household). By limiting content identification to times when the television is actually turned on, content consumption is more accurately determined.").)

47. HyphaMetrics has willfully infringed the '994 Patent since the filing date of this Complaint.

48. Through the conduct alleged above, HyphaMetrics has caused and will in the absence of an injunction continue to cause Nielsen to suffer damages, which in no event are less

than a reasonably royalty, and which include, but are not limited to, lost sales and sales opportunities.

49. HyphaMetrics has also irreparably harmed Nielsen. Unless and until HyphaMetrics is enjoined by this Court from further infringement, Nielsen will continue to suffer damages and irreparable injury for which it has no adequate remedy at law.

PRAYER FOR RELIEF

WHEREFORE, Nielsen prays for judgment against Defendant as follows:

1. A judgment declaring that Defendant has infringed the '994 Patent and that such infringement has been willful;

2. An order and judgment permanently enjoining Defendant and its officers, directors, agents, servants, employees, affiliates, and all others acting in privity or in concert with them, and their parents, subsidiaries, divisions, successors and assigns, from further acts of infringement of the '994 Patent;

3. A judgment awarding Nielsen all damages adequate to compensate for the Defendant's infringement of the '994 Patent, but in no event less than a reasonable royalty, for Defendant's acts of infringement, including all pre-judgment and post-judgment interest at the maximum rate permitted by law;

4. A judgment awarding Nielsen all damages, including treble damages, based on any infringement found to be willful and egregious, pursuant to 35 U.S.C. § 284, together with pre-judgment interest;

5. A finding that this case is "exceptional" within the meaning of 35 U.S.C. § 285;

6. A judgment ordering that Defendant pay Nielsen its reasonable attorneys' fees and expenses pursuant to 35 U.S.C. § 285; and

7. Such other and further relief as this Court deems just and proper.

DEMAND FOR JURY TRIAL

Pursuant to Federal Rule of Civil Procedure 38, Plaintiff demands a jury trial on all issues so triable.

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7455282 / 52358

Respectfully submitted,

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